

Application Serial Number: 09/885,408
In response to Office Action dated April 22, 2004

IN THE CLAIMS

Claims 1-13 are presented below:

1. (Currently Amended) A communication method comprising the steps of:

- a) transmitting an ACK signal indicating that a received packet includes no error or a NACK signal indicating that the received packet includes error from a reception station to a transmission station, and performing automatic repeat request;
- b) obtaining reliability of the received packet when demodulating it at the reception station; and
- c) reporting from the reception station to the transmission station the reliability of the received packet, utilizing the ACK/NACK signal, wherein the NACK signal expresses at least two levels of reliability ~~by using not less than three levels~~;
- d) determining based on the reliability of said received packet whether or not said received packet should be stored to be combined with a re-transmission packet, when said received packet includes an error; and
- e) performing re-transmission control based on the determination made in said step d).

2. (Canceled).

3. (Previously Presented) The method as claimed in claim 1, further comprising the step of f) performing control of a transmission parameter at the transmission end based on the ACK/NACK signal transmitted from the reception end.

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4. (Currently Amended) A communication method in a mobile communication system performing power control at a transmission station so that reception quality at a reception station may be kept constant, comprising the steps of:

a) transmitting an ACK signal indicating that a received packet includes no error or a NACK signal indicating that the received packet includes error from a reception station to a transmission station, and performing automatic repeat request;

b) storing a history of the received ACK/NACK signals, and performing control of a transmission parameter utilizing at least one ACK/NACK signal and a transmission power control signal at the transmission station; and

c) performing re-transmission control based on the transmission parameter, wherein the NACK signal expresses at least two levels of reliability.

5. (Previously Presented) The method as claimed in claim 4, further comprising the step of d) re-transmitting a retransmission packet re-built so as to be able to be properly combined with an already transmitted packet at the reception end, when an information transmission rate for transmission from the transmission end is changed through the transmission parameter control at the transmission end.

6. (Previously Presented) A communication method in a mobile communication system, comprising the steps of:

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a) a reception station transmitting an ACK signal indicating that a received packet includes no error or a NACK signal indicating that the received packet includes error, to a transmission station, and performing automatic repeat request;

b) when uplink site diversity reception is performed such that a plurality of reception stations simultaneously receive a signal transmitted from a transmission station, the plurality of reception stations generating the ACK/NACK signals, and transmitting them the ACK/NACK signals to the transmission station and a host station of the plurality of reception stations;

c) said host station of the plurality of reception stations receiving the ACK/NACK signals from the plurality of reception stations, and, upon receiving more than n ACK signals, where n denotes an integer not less than 1, generating the ACK signal so as to transmit it to the respective reception stations; and

d) said transmission station performing re-transmission control utilizing the ACK/NACK signals from the plurality of reception stations.

7. (Canceled).

8. (Currently Amended) The method as claimed in claim 6, further comprising the step of e) determining at the mobile station that proper reception was performed at the reception end, when the mobile station receives the ACK/NACK signals from the plurality of base stations which include not less than n $[(\leq 1)]$ (≥ 1) ACK signals.

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9. (Currently Amended) A communication method in a mobile communication system, comprising the steps of:

a) a reception station transmitting an ACK signal indicating that a received packet includes no error or a NACK signal indicating that the received packet includes error, to a transmission station, and performing automatic repeat request;

b) when uplink site diversity reception is performed such that a plurality of reception stations simultaneously receive a signal transmitted from a transmission station, the reception station obtaining reliability of a received packet upon demodulating the received packet, and reporting to the transmission station and a host station of the plurality of reception stations the reliability of the received packet with the ACK/NACK signal by not less than three levels wherein the NACK signal expresses at least two levels of reliability; and

c) said host station generating based on the plurality ACK/NACK signals reported thereto the ACK/NACK signal, and, said plurality of reception stations transmitting the same ACK/NACK signals generated by the host station to the transmission station.

10. (Currently Amended) A communication method in a mobile communication system, comprising the steps of:

a) transmitting an ACK signal indicating that a received packet includes no error or a NACK signal indicating that the received packet includes error, from a reception end to a transmission end, and performing automatic repeat request; and

b) when downlink site diversity reception is performed such that signals transmitted from a plurality of base stations are simultaneously received by a mobile station,

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demodulating a received packet at the mobile station, generating the ACK/NACK signal, and transmitting ~~it~~ the ACK/NACK signal to the mobile station and a host station of the plurality of base stations; and

c) when a host station of the plurality of base stations receives the ACK/NACK signals via the plurality of base stations which include not less than $[(\leq 1)]$ (≥ 1) ACK signals, determining that the plurality of base stations performed proper reception, then re-transmission control being performed at the plurality of base stations

11. (Currently Amended) A base station using an ACK/NACK signal and performing automatic repeat request, wherein said base station participates in uplink site diversity as one of a plurality of base stations that simultaneously receive a signal transmitted from a mobile station, said base station comprising:

a part generating the ACK/NACK signal and transmitting $[[it]]$ the ACK/NACK signal to the mobile station and to a host station; and

a part receiving the common ACK/NACK signal from the host station of the plurality of base stations.

12. (Canceled).

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13. (Canceled).